



# ANHYDROUS AMMONIA STORAGE FACILITY - INSPECTION CHECKLIST

NORTH DAKOTA DEPARTMENT OF INSURANCE

BOILER INSPECTION DIVISION

SFN 51230 (Rev. 03-2004)

Date of Inspection	Date of Installation	AA Identification Number AA-	Facility License Number AA
Name of Owner			Telephone Number
Address			
City		State	Zip Code
User Location			
Contact Person			Telephone Number
Name of Installer			
Name of Inspector			Retail <input type="checkbox"/> Yes <input type="checkbox"/> No

SAT	UNS	<b>A) SITE</b>
		1) Approved by County Commission/Licensed by Commissioner of Agriculture
		2) Siting as per North Dakota Century Code
		Proper clearances; accessible to emergency vehicles; no weeds or clutter within 10 feet
		3) Identification sign with owner/emergency phone numbers and owner name and address
		4) License posted at facility

## B) MAIN STORAGE CONTAINER

Manufacturer		Water Gallon Capacity	Year Built	Flow Meter <input type="checkbox"/> Yes <input type="checkbox"/> No
National Board Number	Shell Thickness	OSA Square Feet	Manhole <input type="checkbox"/> Yes <input type="checkbox"/> No	Meter <input type="checkbox"/> Yes <input type="checkbox"/> No
Serial Number	Head Thickness	Percent Full	PSI at °F	Scale <input type="checkbox"/> Yes <input type="checkbox"/> No
		1) Manufacturer's Data Report provided (new installations)		
		2) Container is ASME constructed		
		3) Container is National Board registered (new installations)		
		4) Condition of paint <input type="checkbox"/> Repaint required <input type="checkbox"/> Spot repaint required		
		5) Proper container decals <input type="checkbox"/> DOT 1005 <input type="checkbox"/> Anhydrous Ammonia <input type="checkbox"/> Inhalation Hazard		
		6) Post construction repairs or alterations		
		7) Welded seams, nozzles, and fittings		
		8) Supports/saddles satisfactory Type of support?		
		9) Liquid level gauge		
		10) O-400 psi pressure gauge, NH <sub>3</sub> rated		
		11) Safety valve manifolds installed	Number:	Brand:
		12) Safety valves ASME/NB	Number:	Brand:
		13) Safety valves date current	Replace Date:	
		14) Safety valve capacity in CFM	CFM Cap:	<input type="checkbox"/> UL <input type="checkbox"/> ASME
		15) Safety valve rain caps in place		
		16) Container thermometer		

## C) PIPING AND APPURTENANCES

	1) Excess flow valves installed at container openings	Main Liquid:	GPM:
	2) Main stop valves installed and in satisfactory condition	Liquid Return:	GPM:
	3) Main stop valves labeled or color coded	Vapor:	GPM:
	4) Piping SCH 80 minimum where threaded; SCH 40 minimum where welded		
	5) Welded piping welded by current Section IX certified welder (new installations)		

SAT	UNS	
		6) Pipe and pipe fittings are correct (i.e. no cast iron, copper, brass, galvanized, zinc or A-53 Type F material)
		7) Flex piping and expansion joints used where necessary
		8) Underground piping corrosion protected
		9) No threaded piping used underground (new installations)
		10) Pressure test of system piping made (new installations)
		11) Bulkheads and/or breakaways provided at nurse tank stations
		Emergency shut-off valves in place (bulkhead systems)
		Cables attached for remote and installed location shutoff (bulkhead systems)
		Excess flow protection installed at risers
		Liquid Riser:
		Vapor Riser:
		12) Bulkheads and breakaways provided at truck unload stations
		Emergency shut-off valve on vapor line
		Back check valve on liquid line
		Cable attached for remote location shutoff
		Bleeder valve(s), bleeder hoses, container
		13) Date current hydrostatic relief valves installed
		14) Transfer hoses date current and in good condition
		15) Transfer pump rated for anhydrous ammonia Brand: Size:
		Isolation valve between transfer pump and container
		Pressure Activated Bypass Size: Brand: Pressure Range:
		16) 0-400 psi pressure gauge on discharge side of transfer pump
		17) Compressor rated for anhydrous ammonia
		Proper gauges, safety valve, stop valves
		18) Approved locking devices and locks on valves (when facility is unattended)
		19) System is leak free in operation
		20) Piping and appurtenances protected from moving vehicles

**D) SAFETY AND SAFETY EQUIPMENT**

		1) 150 gallons of clean water in an open container(s)
		2) Two full face gas masks with spare ammonia canisters
		3) Z87.1 rated goggles, and gloves impervious to ammonia
		4) "Slicker suit" and boots impervious to ammonia
		5) Annual documented training provided for those handling ammonia
		6) Telephone (or other communication device) available during transfer operations
		7) Adequate fire extinguisher on site at facility
		8) Adequate loading platform

**E) EPA RISK MANAGEMENT PROGRAM**

			Adequate	Inadequate	Missing
		1) Specific safety information for NH <sub>3</sub>			
		2) Hazard Review			
		3) Written operating procedures			
		4) Maintenance Program			
		5) Three-year compliance audit completed			
		6) RMP Re-submission to EPA			

**NOTES ON UNSATISFACTORY ITEMS**

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